

REMARKS

This Amendment is being filed in response to the Office Action mailed September 26, 2007, which has been reviewed and carefully considered. Reconsideration and allowance of the present application in view of the remarks to follow are respectfully requested.

In the Final Office Action, claims 1-7 are rejected under 35 U.S.C. §103(a) as allegedly unpatentable over U.S. Patent No. 6,160,826 (Swanson) in view of an article entitled "Optical Coherence Tomographic Imaging of Human Tissue at $1.55\mu\text{m}$ and $1.81\mu\text{m}$ using Er-and Tm Dopped Fiber Sources" (Bouma) and an article entitled "196-fs Passively Mode-Locked Thulium Fiber Laser with a Low Threshold" (Sharp). It is respectfully submitted that claims 1-7 are patentable over Swanson, Bouma and Sharp for at least the following reasons.

Swanson is directed to a method and apparatus for performing optical frequency domain reflectometry. As shown in FIG 1, the Swanson system 10 has a coupler 30 having one output connected to a photodetector 50 and a second output connected to another coupler

90/10 which is connected to an auxiliary interferometer 96 for correcting any non-linearity in the frequency sweep and ensuring proper demodulation of the reflectance profile of a sample 38.

As clearly shown in FIG 1 of Swanson, the photodetector 50 has a single input port which is connected to the coupler 30. The other coupler 90/10 is NOT connected to any further input port of the very same photodetector 50 which is coupled to the first coupler 30. Rather, this other coupler 90/10 is connected to the auxiliary interferometer 96.

In stark contrast to Swanson, the present invention as recited in independent claim 1 which, amongst other patentable elements, recites (illustrative emphasis provided) :

combine a reflected beam from the reference reflector with a returning beam from the sample space to form a combined beam, and provide the combined beam to a first port of the photodetector, and

a further beam splitter configured to receive part of a radiation from the beam splitter-combination arrangement and to couple out an output beam to a second port of the photodetector.

Swanson is completely silent and does not teach or suggest a photodetector having two ports for receiving a combined beam and an output beam, as recited in independent claim 1. Rather, the

Swanson photodetector 50 has a single input port connected to the first coupler 30. The second coupler 90/10 is not connected the very same photodetector 50, and instead is connected to a different unit, namely, the auxiliary interferometer 96. Bouma and Sharp are cited to allegedly show other features and do not remedy the deficiencies in Swanson.

Accordingly, it is respectfully submitted that independent claim 1 is allowable, and allowance thereof is respectfully requested. In addition, it is respectfully submitted that claims 2-7 should also be allowed at least based on their dependence from amended independent claim 1.

In addition, Applicants deny any statement, position or averment of the Examiner that is not specifically addressed by the foregoing argument and response. Any rejections and/or points of argument not addressed would appear to be moot in view of the presented remarks. However, the Applicants reserve the right to submit further arguments in support of the above stated position, should that become necessary. No arguments are waived and none of the Examiner's statements are conceded.

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In view of the above, it is respectfully submitted that the present application is in condition for allowance, and a Notice of Allowance is earnestly solicited.

Respectfully submitted,

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